APPENDIX C

ENGINEERING DESIGN REPORT

ENGINEERING DESIGN REPORT

GLADE ROAD FACILITY
PASCO, WASHINGTON

- Design Specifications
- Design Drawing

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Project 0030.01.02

Engineering Design Report
Glade Road Facility
Pasco, Washington

CERTIFICATION OF ENGINEER

The technical material and data contained in this document were prepared under the supervision and direction of the undersigned MFA project manager, whose seal, as a professional engineer licensed to practice as such, is affixed below.

Prepared by: Michelle M. Wittenbrink, PE
Project Engineer

Checked by: Steven P. Taylor, PE
Principal Engineer

Approved by: Michael D. Staton, RG
Project Manager
SLR International Corporation

DESIGN SPECIFICATIONS

STANDARD SPECIFICATIONS

The work on this project will be accomplished in accordance with the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction 2002, English Units, including the 1-99 APWA Supplement, as amended, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter "Standard Specifications").

INTRODUCTION TO THE SPECIAL PROVISIONS

The Standard Specifications, as modified or supplemented by the following Special Provisions, will govern all of the Work. In the event there is a discrepancy between the Standard Specifications and these Special Provisions, the Special Provisions will prevail. The Special Provisions apply specifically to the details of the work, as shown on the construction plans for this project.

The prime Contractor will have a copy of the Standard Specifications, a full set of design specifications (Special Provisions) and all addenda to the Contract documents on the job site while the work is being performed.

GENERAL DESCRIPTION OF WORK

Generally, the Work consists of providing the labor, equipment, and materials to complete the following tasks:

- Excavate a approximately 3,250 cubic yards of soil at the former wash pad area of the site, at depths ranging from approximately 0 to 29 feet below ground surface (bgs). The purpose of the excavation will be to remove the dinoseb-impacted soil that is in contact with the shallow groundwater (at depths of 25 to 29 feet bgs). The soil excavated at depths from approximately 25 to 29 feet bgs (total volume of approximately 250 cubic yards) will be hauled off site for disposal. The remaining excavated soil will be used as backfill in the excavation.

- Haul the excavated dinoseb-impacted soil from 25 to 29 feet bgs to the Rabanco Regional Landfill in Roosevelt, Washington, for disposal.

- Supply approximately 250 cubic yards of clean, imported backfill material, and backfill the material at depths of approximately 25 to 29 feet bgs.
- Place a 3-inch-thick asphalt pavement as a permanent cap over the area of excavation and over several other areas of the site (total area of approximately 10,000 square feet).
- Coordinate with utility companies for relocation of underground and overhead power and telephone utility lines.
- Transmit construction documentation to Engineer.

SPECIAL PROVISIONS

DIVISION 1—GENERAL REQUIREMENTS

SECTION 01330 SUBMITTAL REQUIREMENTS

The Contractor will submit copies of the following documents five (5) days before starting on-site work:

Health and Safety Plan: The Contractor is responsible for the health and safety of its workers and subcontractors. The Contractor will prepare a site-specific health and safety plan (HASP) per applicable regulations and submit it to the Engineer for review within five business days of contract award. Contractor is solely responsible for the execution of his HASP. Each subcontractor is required to prepare its own site-specific HASP. The Owner will not approve or disapprove of the Contractor's HASP. The Contractor will control the area of work and establish site work zones (exclusion zone, contamination reduction zone, and clean zone).

Project Plan: The Contractor will submit a Project Plan to be reviewed by the Engineer. At a minimum, the project plan will include a schedule, excavation sequencing, proposed stockpile/material management area(s) location(s), proposed work area entrance locations, and a general description of the methods and equipment the Contractor plans to use to complete the project. Prior to conducting the Work, the Contractor will meet with the Engineer to discuss the Project Plan.

Project Records: During the Work, the Contractor will maintain detailed records to document construction techniques, materials removed, materials placed, and tests and measurements performed. The documentation procedures are discussed briefly below.

The Contractor will complete records to document the Work performed. These records will include, but are not limited to, the following:

- Daily Activity Log—A daily activity log will be completed by the Contractor to describe general site activity and to identify personnel working on site. These records will be completed daily and copies will be provided to the Engineer weekly.

- On-Site Transfer Logs—The Contractor will prepare a daily log of the excavated soil generated and transferred within the site boundaries (e.g., from excavations to stockpiles). The source (e.g., "material from excavation area ABC") and the approximate quantity of material will be identified in this daily log. Copies will be provided to the Engineer weekly.

- Off-Site Tracking Log—A continuous log of all off-site shipments, which will be maintained by the Contractor, will include the following information: type of material, source of material, day shipped, receiver and weight. Copies will be provided to the Engineer weekly.

- Health and Safety Log—A daily record will be maintained of the personnel who are on site and the levels of protection they worked in by task. Results of field health and safety monitoring will be documented in the health and safety log.

Upon completion of the site work, the Contractor will submit copies of the following to the Engineer:

Load and Weight Tickets: All load tickets for imported backfill, and weight tickets from the disposal facility accepting the soil.

Bills of Lading/Manifests: All bills of lading and manifests used to transport the soil to the off-site disposal facility.

Compaction Documentation: Field and laboratory reports per Section 02315 BACKFILLING.

Backfill Documentation: Contractor will provide a statement identifying the source(s) of the backfill material and certification that it met specifications.

Survey: Prior to backfilling, the Contractor will complete a survey of the vertical and horizontal extent of the excavated areas. The survey will include bottom of excavation and top of excavation at each corner and breakpoint and at a minimum of 10-foot intervals. Assume four additional reference points will be surveyed at the direction of the Engineer. The survey will be completed by a surveyor licensed in the State of Washington. Vertical dimensions will be to the nearest tenth of a foot. Horizontal dimensions will be to the nearest tenth of a foot. A preliminary survey data file will be provided to the Engineer. Backfilling can commence only after the Engineer's review of the survey and notice to proceed with backfilling. Two (2) copies of the As-Built Survey will be supplied to the Engineer at the end of the project.

**** END OF SECTION ****

SECTION 01410 CODE REQUIREMENTS

It is the responsibility of the Contractor to investigate and comply with all applicable federal, state, county, and local laws.

The applicable codes and regulations include, but are not limited to:

1. Occupational Safety and Health Act and related regulations.
2. Washington Industrial Safety and Health Act and related regulations.
3. Chapter 296-155 WAC, Safety Standards for Construction Work.
4. Chapter 296-24 WAC, General Safety and Health Standards.
5. Chapter 296-62 WAC, General Occupational Health Standards.
6. USEPA 165.5, Hazardous Materials Incident Response.
7. Flammable and Combustible Liquids Code, National Fire Protection Association, NFPA-30.
8. National Electrical Code, National Fire Prevention Association, NFPA-70.
9. National Institute for Occupational Safety and Health, Criteria for a Recommended Standard: Working in Confined Spaces.
10. Department of Transportation Hazardous Materials Regulations, Title 49 CFR.
11. Resource Conservation and Recovery Act and related regulations.
12. National Emission Standard for Hazardous Air Pollutants, 40 CFR 61 Part M.
13. Uniform Fire Code, 1997 Edition.
14. Chapter 173-340 WAC, Model Toxics Control Act Cleanup Regulation.
15. Franklin County Codes and Regulations.

At a minimum, all workers potentially contacting contaminated soil or materials will be 40-hour trained per the requirements of 29 CFR 1910.120.

The Contractor will resolve conflicts arising from interpretation of these codes. The Owner reserves the right to approve the Contractor's resolution of code conflicts.

**** END OF SECTION ****

SECTION 01415 PERMIT REQUIREMENTS

Since the Work will be conducted under an Agreed Order, the requirement to obtain local and state permits for this Work is waived under the Model Toxics Control Act. However, the Contractor will comply with the substantive requirements of a Franklin County Grading Fill and